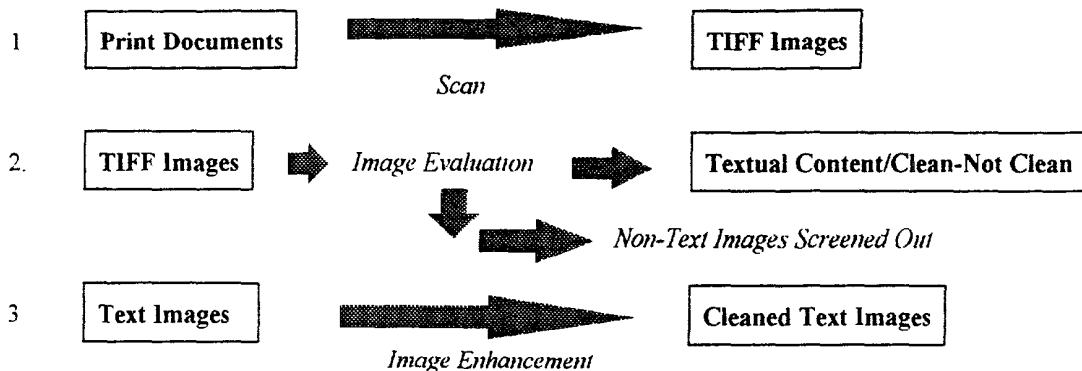


Figure 1

Image-to-Data Processing System:

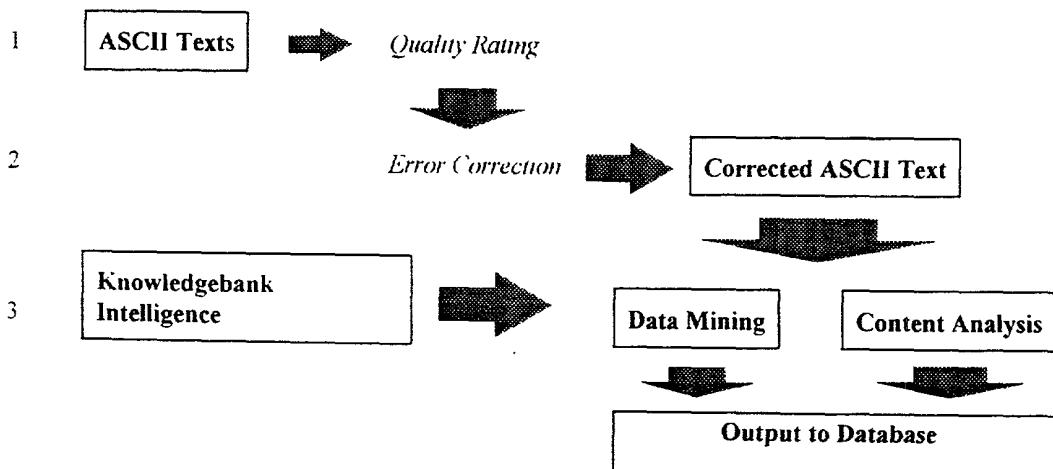
Pre-OCR Processes



Optical Character Recognition: Image-to-Text Conversion



Post-OCR Processes: Text-to-Data Conversion



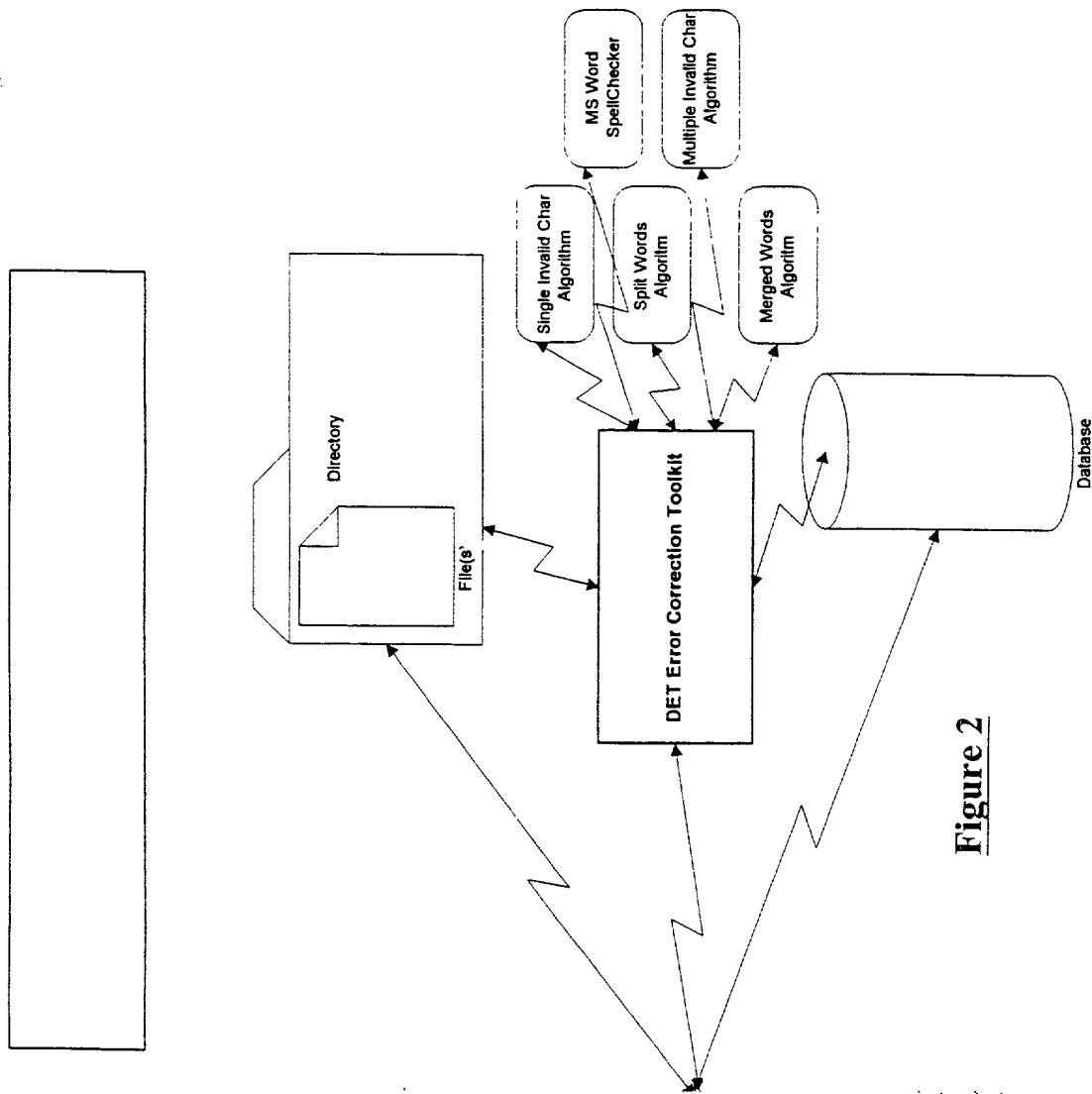
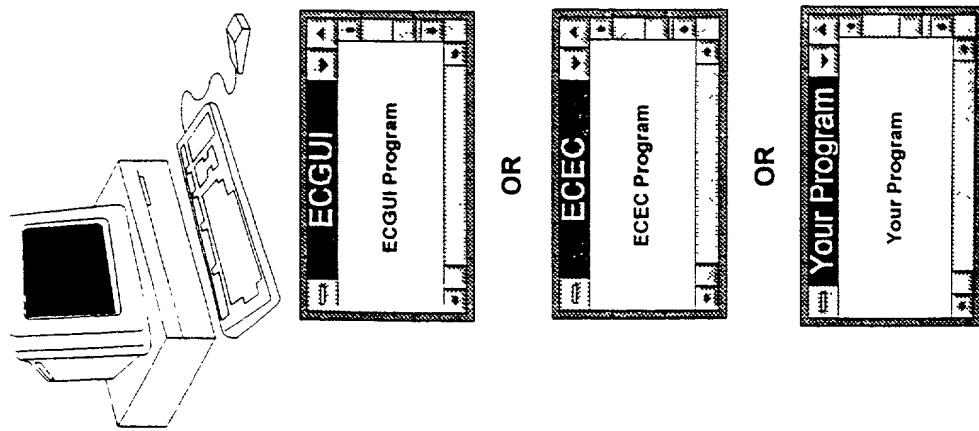


Figure 2



Computer-Aided Error Correction

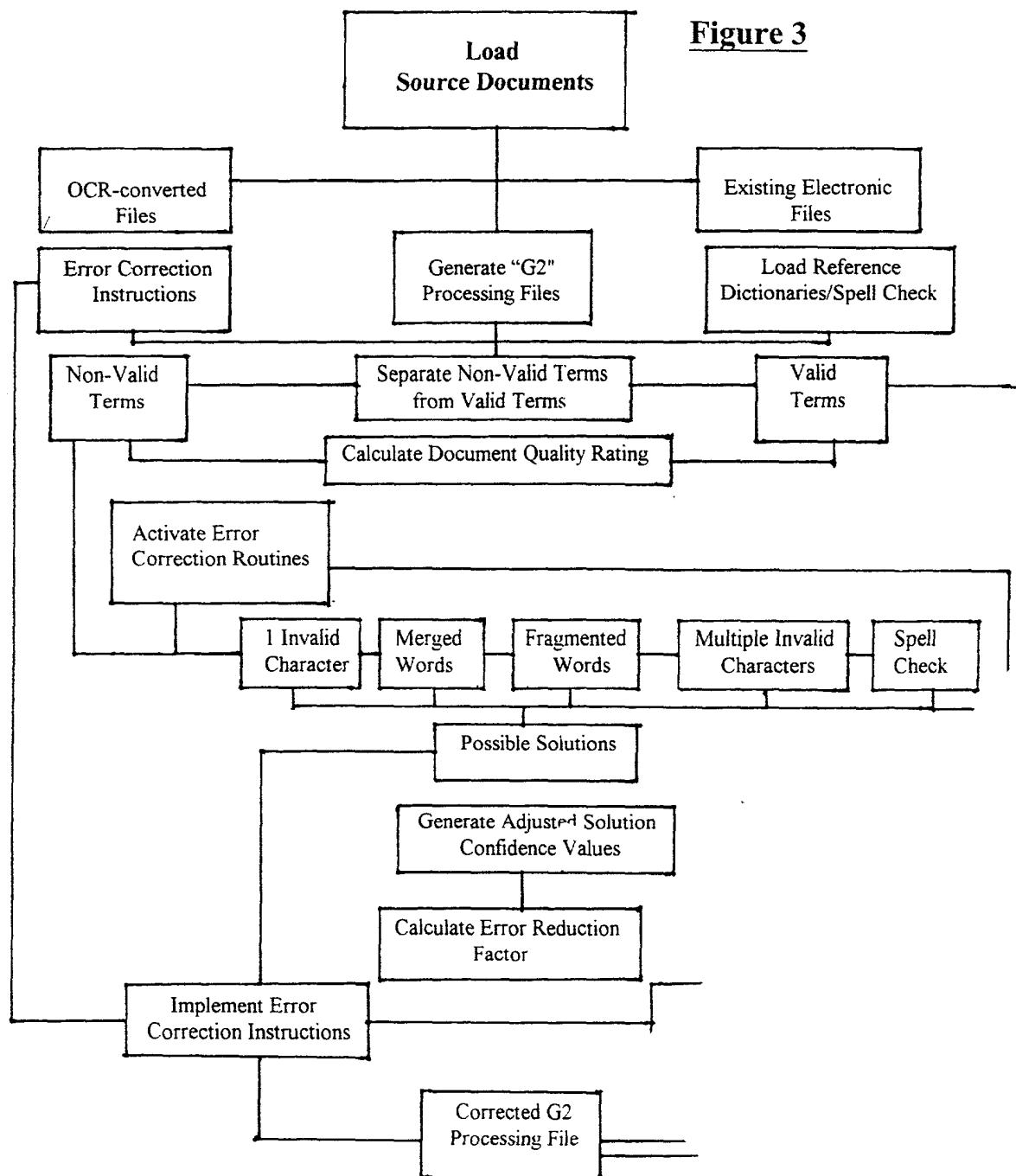


Figure 4

Diagram: Screening

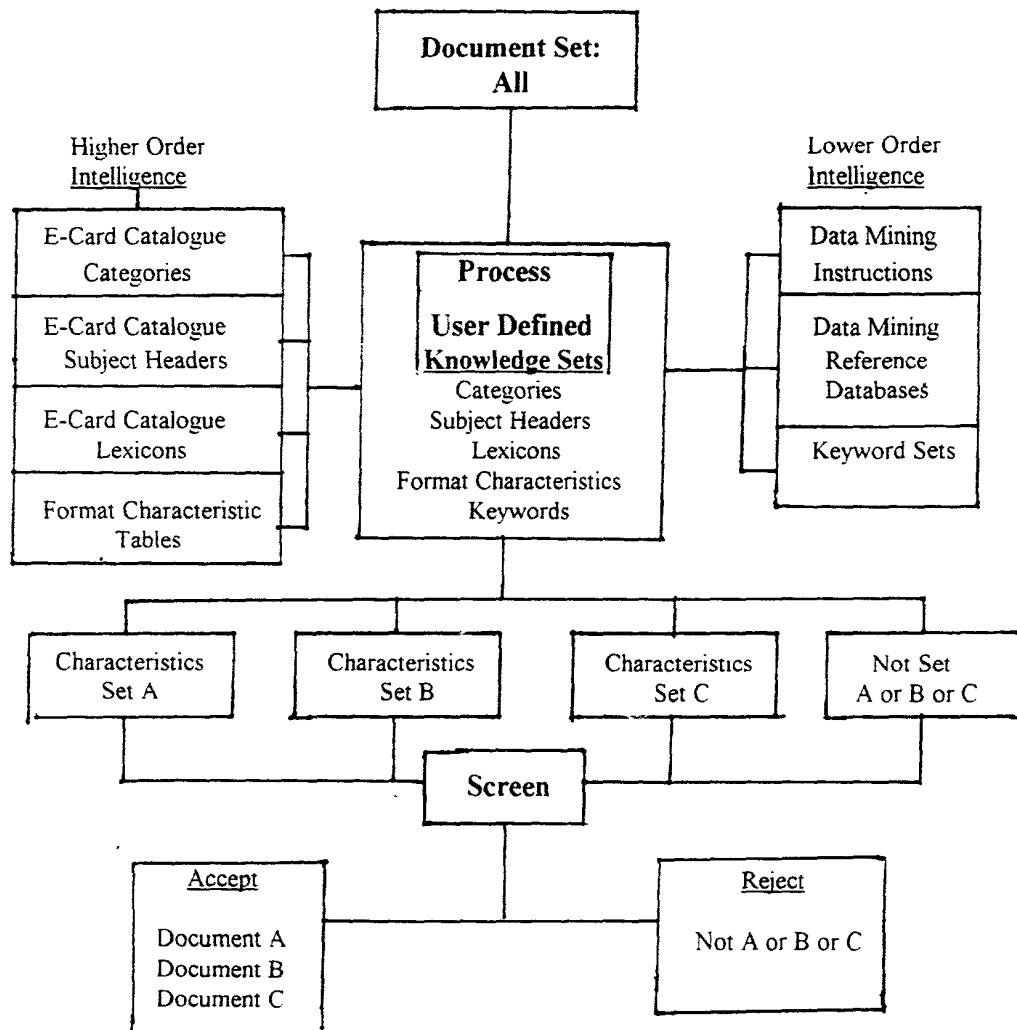


Figure 5

Diagram: Sorting

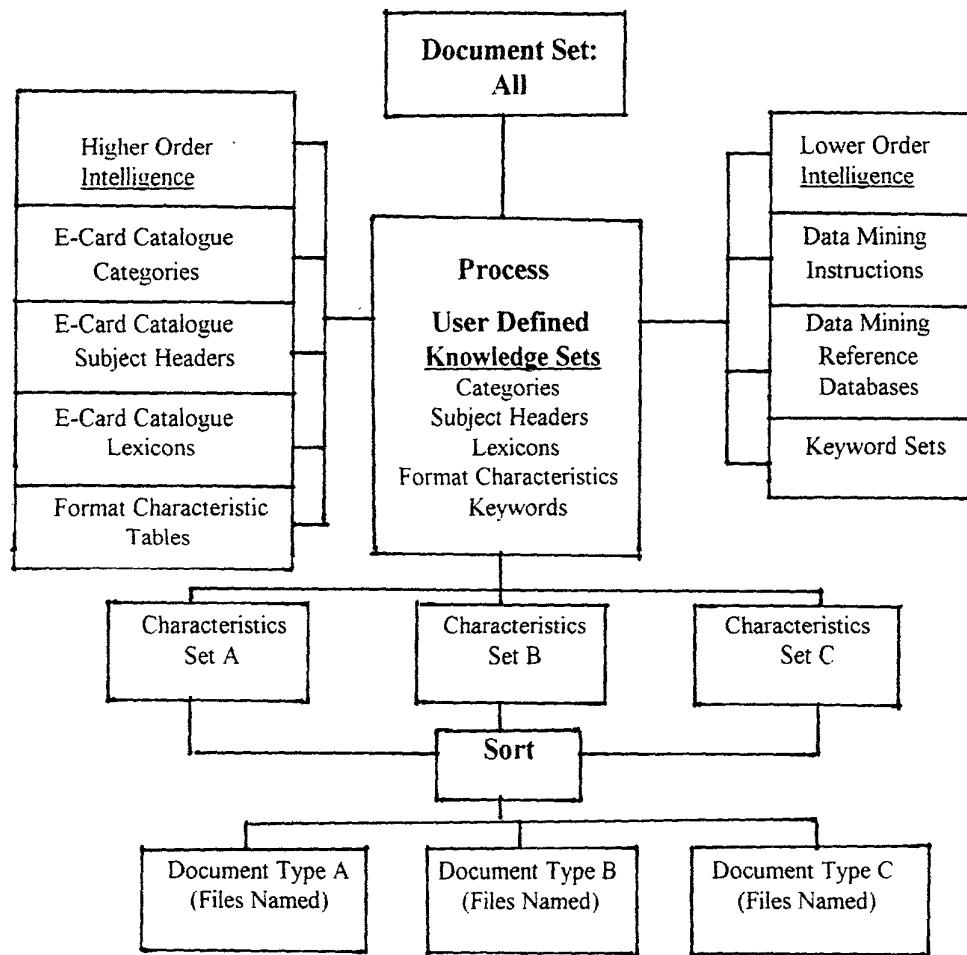


Figure 6

Diagram: Characterizing

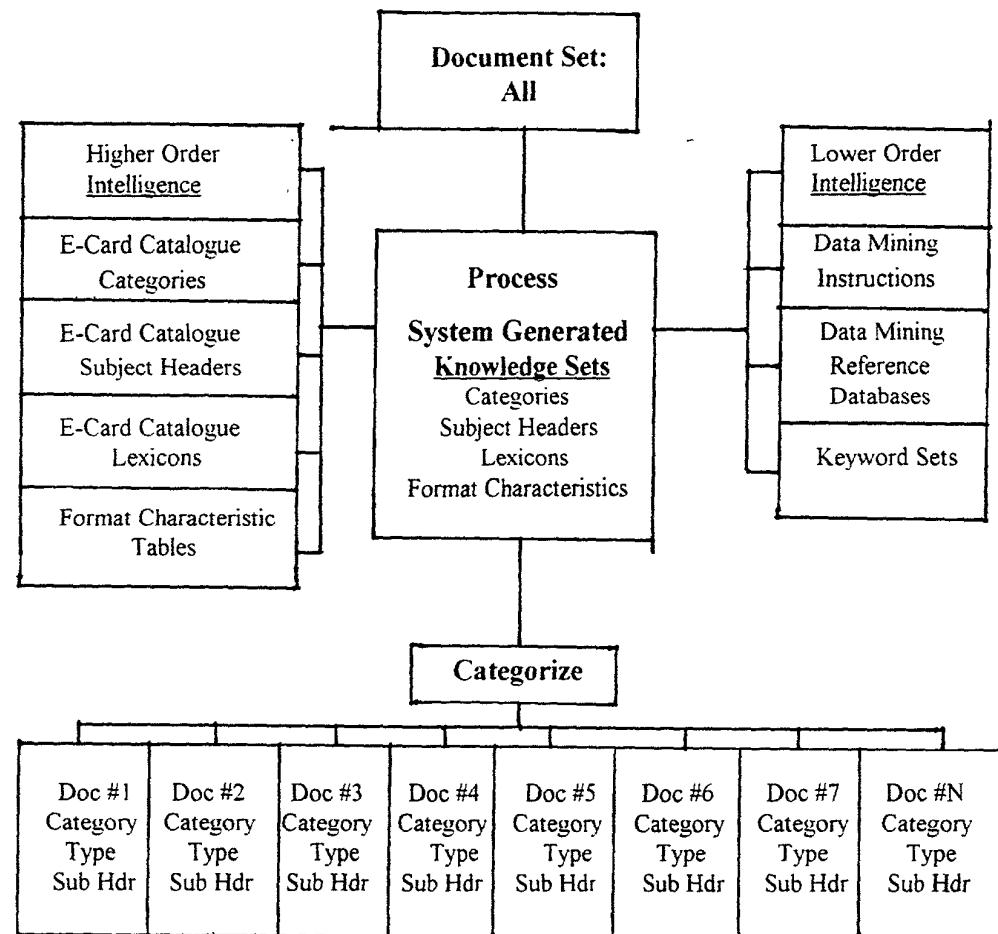


Figure 7

Diagram: Abstracting

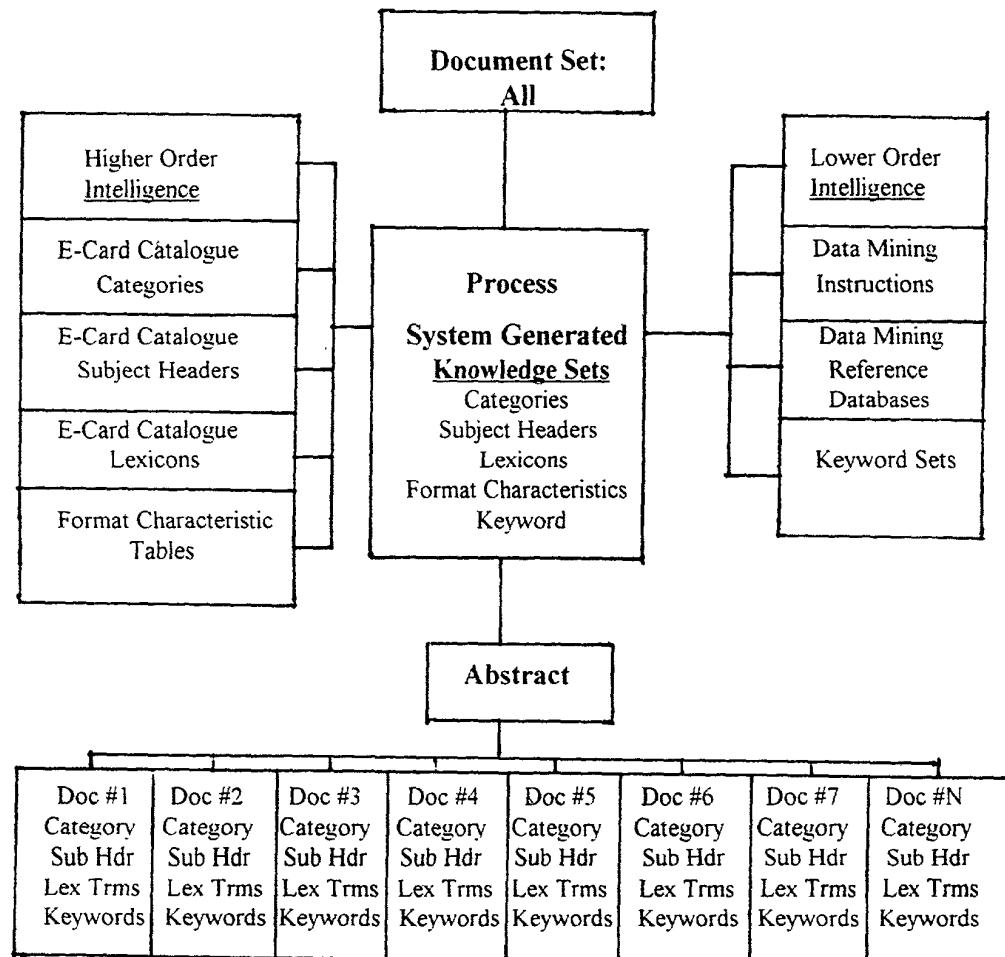


Figure 8

Diagram: Profiling

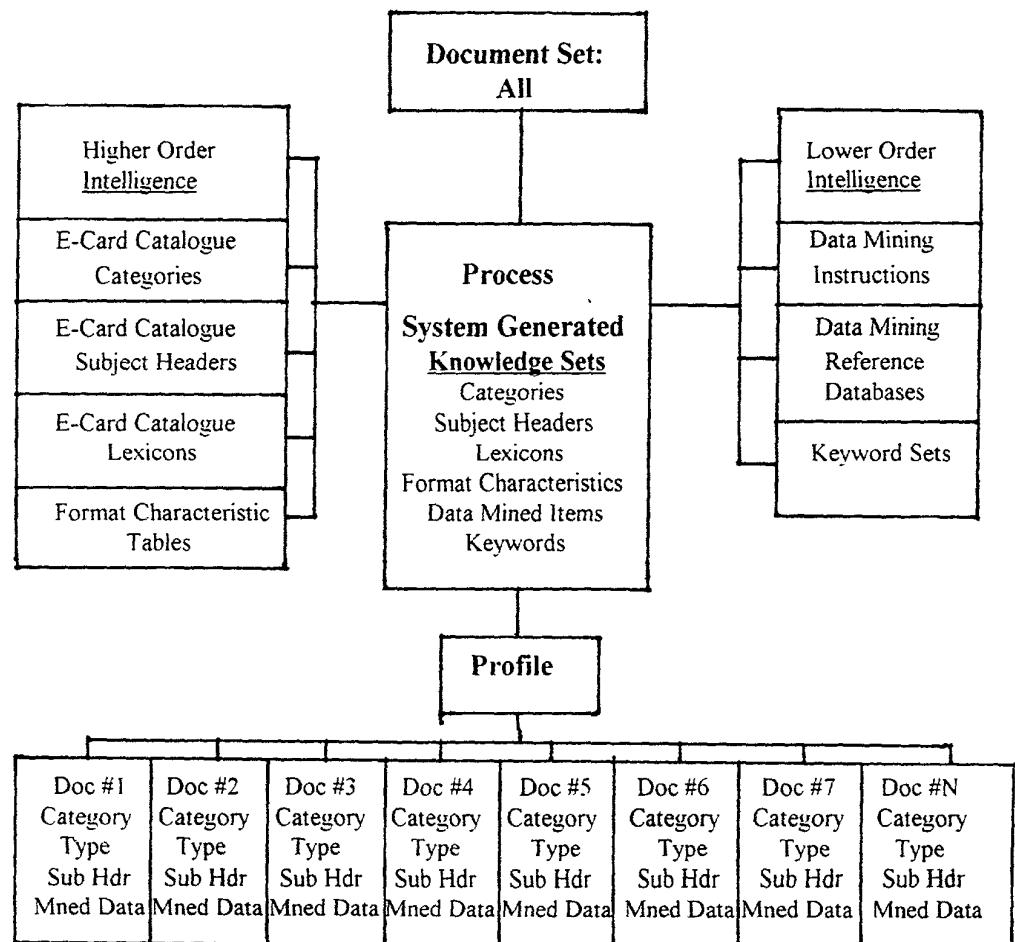
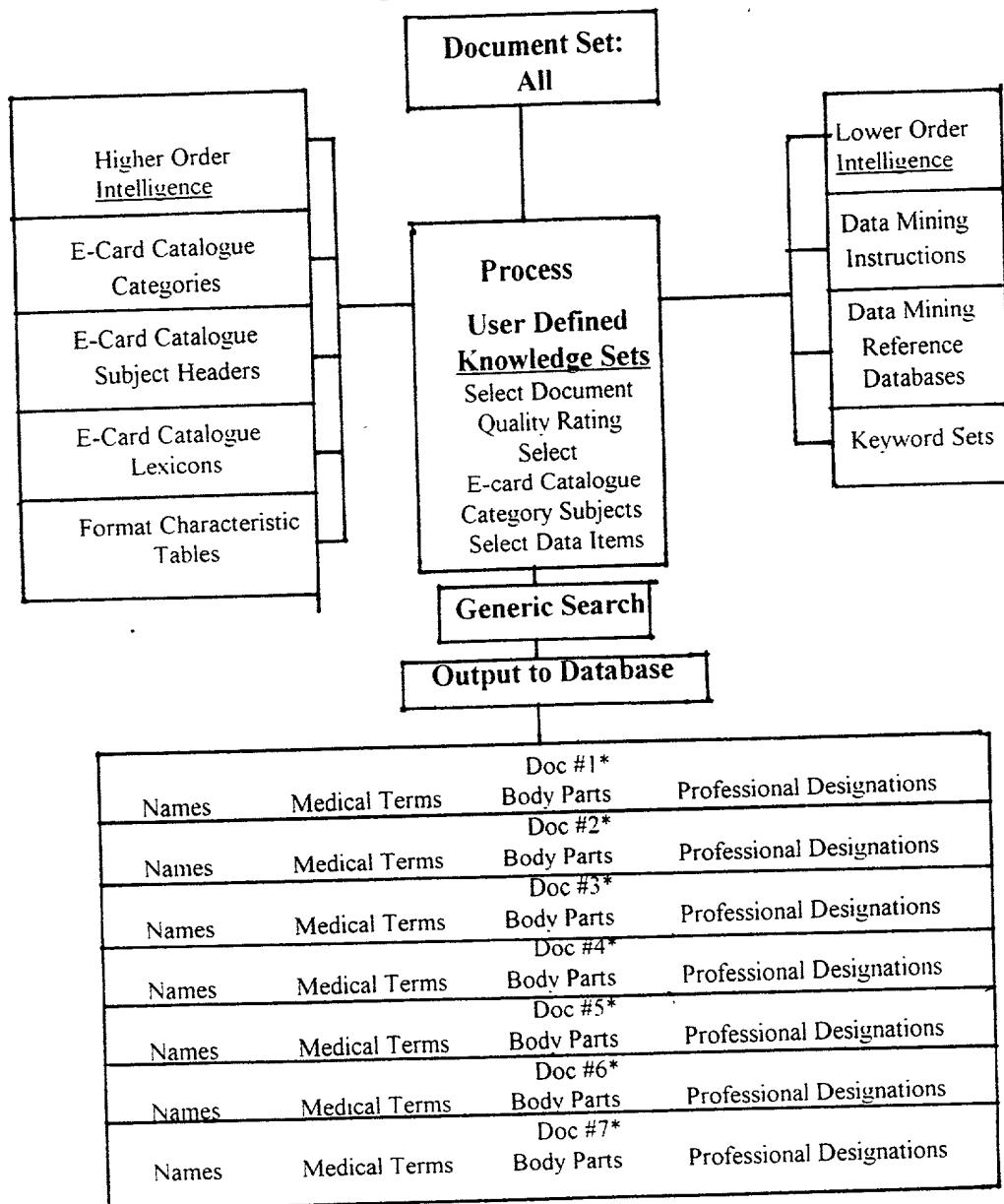


Figure 9

Diagram: Generic Searching



* as an example

Figure 10

Diagram: Data Mining

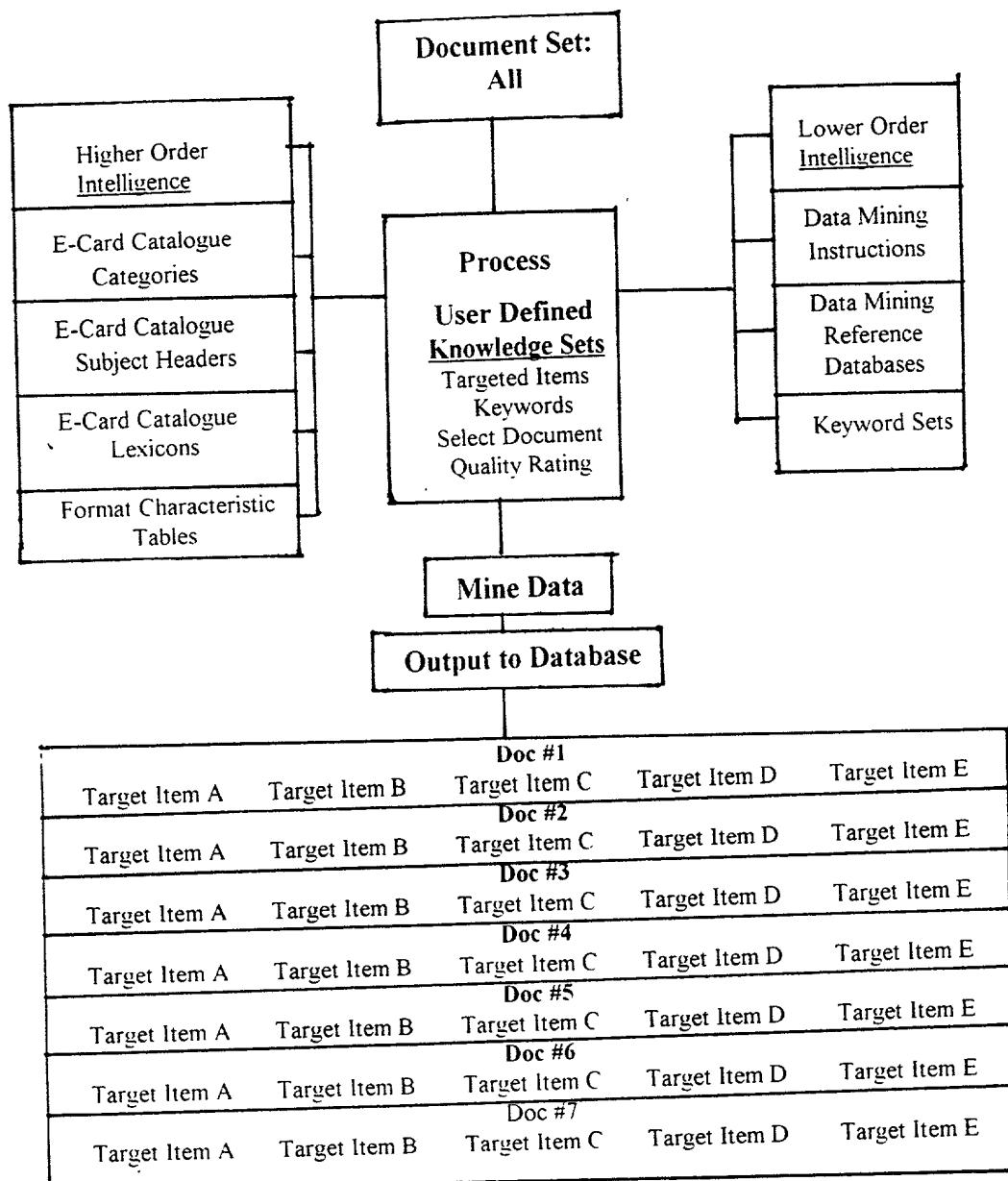
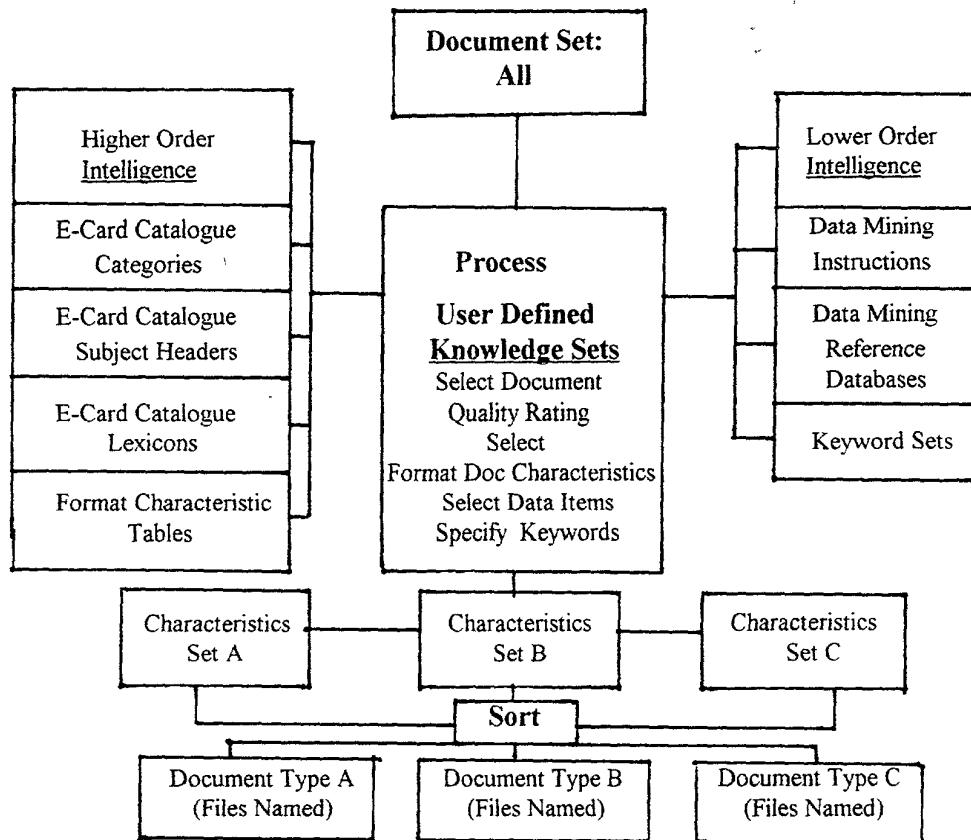


Figure 11

Diagram: Non Standard Forms Processing



Mine Data Appropriate to Document Type

Document Type A (File Name)	Document Type B (File Name)	Document Type C (File Name)
Mined Data (File Name)	Mined Data (File Name)	Mined Data (File Name)
Mined Data (File Name)	Mined Data (File Name)	Mined Data (File Name)
Mined Data (File Name)	Mined Data (File Name)	Mined Data (File Name)
Mined Data	Mined Data	Mined Data

Output to Database

Figure 12

Word list and index table
<word> <index#>

alpha	1004
...	
animal	1027
...	
astrophysics	2070
...	
botany	2903
...	
zoology	9900

Thousands' Group

0
1
2
3
4
5
6
7
8
9

Hundreds' Grouping

0
1
2
3
4
5
6
7
8
9

Ten's Grouping

0
1
2
3
4
5
6
7
8
9

Unit Grouping
Actual Unit Bit Array

0
1
2
3
4
5
6
7
8
9

Bit Asserted

0
1
2
3
4
5
6
7
8
9

Bit Asserted

0
1
2
3
4
5
6
7
8
9

Bit Asserted

0
1
2
3
4
5
6
7
8
9

Bit Asserted

0
1
2
3
4
5
6
7
8
9

Bit Asserted

Figure 13

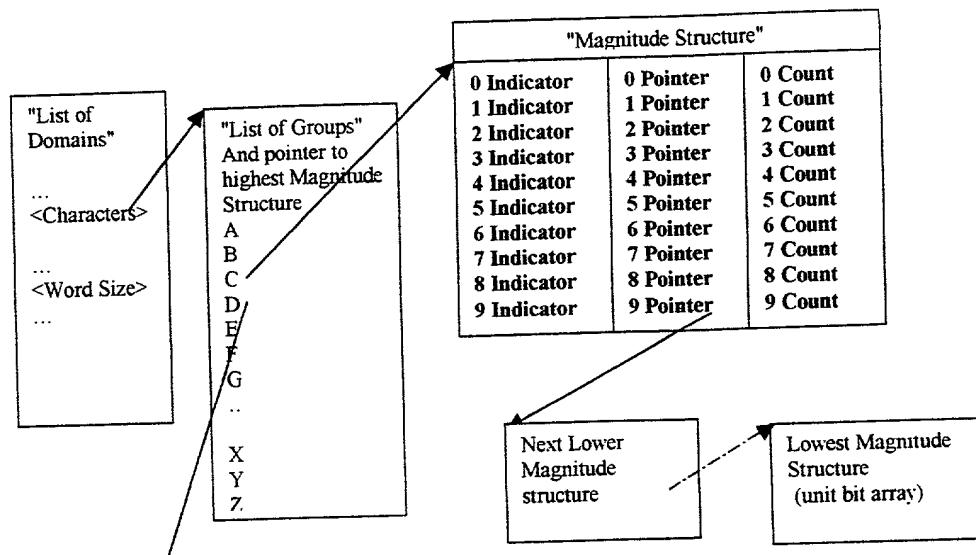


Figure 2a Actual Memory Mapping for the Full Array

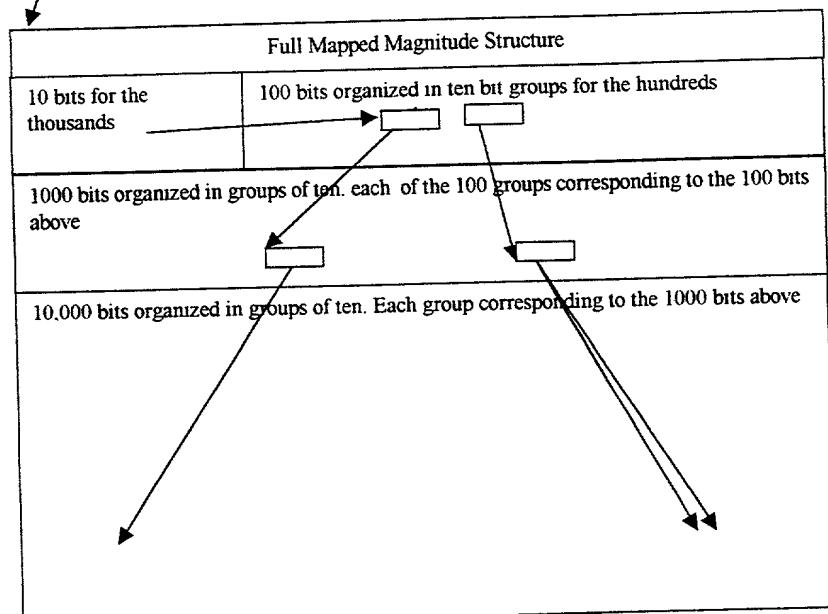


Figure 14

